Student Name:
School Name:
Teacher/Class:

# Montana Comprehensive Assessment System (MontCAS, Phase 2 CRT)

GRADE 8
COMMON RELEASED ITEMS
SPRING 2007





OFFICE OF PUBLIC INSTRUCTION

#### **General Directions**

This test contains six sessions: three in reading and three in mathematics. The sessions are made up of multiple-choice questions and questions for which you must show your work or write out your answers. Write your answers to all of the questions in your Student Response Booklet. For the reading parts of the test, read each selection before answering the questions.

For each multiple-choice question, choose the best answer. Fill in the bubble in your Student Response Booklet that corresponds to your answer choice for that question.

Some questions ask you to show your work or to write out your answers. Write your answers to these questions in the spaces provided in your Student Response Booklet.

Your answers must fit in the spaces provided. Any part of an answer outside the box might not be scored.

Be sure to answer all parts of each question, and to answer completely. For example, if a question asks you to explain your reasoning or show your work, be sure to do so. You can receive points for a partially correct answer, so try to answer every question.

© 2007 Measured Progress. All rights reserved.

For information, contact Measured Progress, P.O. Box 1217, Dover, NH 03821-1217.

Printed in the United States of America.

## Reading Session 1

This test session includes a reading selection and multiple-choice questions. After you read the selection, answer the questions about it in the spaces provided in your Student Response Booklet. You may not use a dictionary or any other reference tool during this session.

This poem is about a girl who loves to ride horses. Read the poem and then answer the questions that follow.

#### The Race

She rode a horse named Fina when women didn't ride. They galloped around the mountain, her legs on Fina's side.

5 She let her hair down from its bun and felt it whip and fly. She laughed and sang and whooped out loud. Up there she wasn't shy!

One day great-grandma found her out 10 and planned to stop it all. But down in town they'd heard some news... they told her of a <u>call</u>.

A <u>call</u> for the caballeros<sup>1</sup> from all the highs and lows
15 to race their fancy caballos<sup>2</sup> to try and win the rose.

Abuela looked at Fina, a twinkle in her eye. Abuela said, "Let's enter!

20 This race deserves a try."

At dawn she was the only girl, but didn't even care. She came to meet the challenge, and her horse was waiting there.

25 They swept across the finish line much faster than the rest.

She flung her hat without surprise; she'd always done her best.

Fina shook her mane and stomped.

30 Abuela flashed a smile.

She sniffed the rose and trotted off in caballera<sup>3</sup> style!

—Jennifer Trujillo

<sup>&</sup>lt;sup>1</sup> caballeros: horsemen

<sup>&</sup>lt;sup>2</sup> caballos: horses

<sup>&</sup>lt;sup>3</sup> caballera: horsewoman

## Mark your answers to questions 1 through 5 in the section marked "Reading—Session 1" in your Student Response Booklet.

- 1. Why do the people in town tell Abuela about the race?
  - A. They know she will want to enter it.
  - B. It is a race for boys and girls.
  - C. They are sure she cannot win it.
  - D. Her great-grandma asks them to tell her.

*Use the dictionary entry below to answer question 2.* 

call n 1. an act of calling with the voice: Susan heard her father's call to come to the dinner table. 2. an act of calling on the telephone: We are expecting a call from our relatives in Alaska. 3. a request or invitation to assemble: The mayor of the city sent out a call for people to help with cleanup. 4. a demand: The store had many calls for the new toy.

- 2. Which definition of <u>call</u> is used in lines 12 and 13?
  - A. definition 1
  - B. definition 2
  - C. definition 3
  - D. definition 4

- 3. In line 18, the phrase "a twinkle in her eye" means Abuela is feeling
  - A. sad.
  - B. brave.
  - C. excited.
  - D. worried.
- 4. Which statement **best** tells how the speaker feels about Abuela?
  - A. She thinks Abuela's behavior is foolish.
  - B. She admires Abuela's sense of independence.
  - C. She is puzzled by Abuela's love of riding.
  - D. She shares Abuela's love of the outdoors.
- 5. What is the **main** purpose of this poem?
  - A. to describe a place
  - B. to persuade
  - C. to inform
  - D. to tell a story

NO TEST MATERIAL ON THIS PAGE

## Reading Session 2

This test session includes reading selections, multiple-choice questions, and a question for which you must write out your answer. After you read each selection, answer the questions about it in the spaces provided in your Student Response Booklet. You may not use a dictionary or any other reference tool during this session.

This story is about a flock of birds that live together in the forest. Read the story and then answer the questions that follow.

#### A Flock of Birds

Heather Forest

A great flock of quail lived together in the forest. Food was plentiful and life was peaceful. One day a crafty hunter, who could imitate their song perfectly, came to the forest. When he whistled, a great group of quail gathered in response. When the flock landed on the ground, the hunter approached silently and threw a huge net over them. With a hearty laugh, he slung the net over his shoulder and took the quail to market. Each day he played his trick, and the flock grew smaller and smaller.

After some time, the wisest old quail assembled what was left of the flock and said, "The hunter is skilled and can easily trick you into his net. If you work together, he cannot defeat you. Beat your wings as one, and you will lift the net that binds you."

The flock listened carefully to the old quail's words. The next time the hunter came and threw his net over a group of quail, they were not <u>dismayed</u>. As one, they beat their wings. They rose, taking the net with them. They swooped down onto a tree. As the net caught and snagged in the tree's branches, the birds flew out from under it to freedom.

The hunter looked up in amazement and thought, "When the birds cooperate, I cannot capture them. Each bird is small and yet together they can lift the net!"

The next day, the hunter again flung his net over a large group of quail as they pecked seeds on the ground. Pleased with their mighty accomplishment of the day before, the quail began to beat their wings together. Accidentally, one quail bumped into another and started a ruckus. "Watch out!" squawked the bird. "You are stepping on my tail feathers."

"Someone pushed me!" retorted the other with a hard peck.

"This is no time to fight," scolded another still. "The hunter is almost here. We must all work together and peacefully fly as one."

"You are not the mighty ruler!" sniped the first. "Stop telling us what to do!"

While they squabbled and scolded,
postured and fought,
the hunter arrived
and the birds were caught.
He scooped up his net
and proclaimed, "I'm the winner!
Together they're strong.
Divided they're dinner."

## Mark your answers to questions 6 through 10 in the section marked "Reading—Session 2" in your Student Response Booklet.

- 6. The **main** purpose of the first paragraph is to describe
  - A. the setting for the story.
  - B. the song the hunter whistled.
  - C. a plan that helped the flock to escape.
  - D. a problem the flock needed to solve.
- 7. In paragraph 3, the word <u>dismayed</u> means
  - A. disappointed.
  - B. discouraged.
  - C. discovered.
  - D. disagreed.
- 8. What is the purpose of the text in italics at the end of the story?
  - A. to honor the quail
  - B. to praise the hunter
  - C. to present the moral
  - D. to summarize the story

- 9. Which statement **best** expresses the theme of this story?
  - A. There is strength in numbers.
  - B. Honesty is the best policy.
  - C. You cannot please everyone.
  - D. Slow and steady wins the race.
- 10. What type of story is "A Flock of Birds"?
  - A. a fable
  - B. historical fiction
  - C. a legend
  - D. realistic fiction

This article is about how to use a compass and how to make one of your own. Read the article and then answer the questions that follow.

#### **Make Your Own Compass**

Karen E. Hong

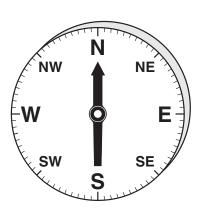
### Activity #1 MAKE YOUR OWN COMPASS

You can make your own compass from things you have around the house. You will need:

- a magnet
- a pin
- a paper cup
- a sewing needle
- a small bit of sponge or cork
- a pen or pencil
- 1. Write the letter N (north) on one side of the paper cup. Write S (south) directly opposite. On the right side of the cup, halfway between the N and the S, write E (east). Directly across from the E, write W (west).
- 2. Fill the paper cup with water.
- 3. Rub the sewing needle across the magnet about 25 times. Rub only in one direction.
- 4. Hold the needle near the pin. If the pin moves, the needle is now a magnet. If the pin doesnít move, rub the needle across the magnet 25 more times. (You may need to use a stronger magnet.)
- 5. Wet the sponge or cork. Then slide the magnetized needle through it.
- 6. Float it in the cup of water. Turn the cup until the end of the needle points to the letter N.

#### Activity #2 HOW TO USE A COMPASS

- 1. Hold a compass flat in your hand.
- 2. Turn it until the N on the compass is at the north-pointing arrow.
- 3. Now that you know where north is, you also know the other directions. (Remember, when you're facing north, south is behind you, east is on your right, and west is on your left.) Keep the compass in the same place in your hand as you turn in a circle. The compass needle will always point north.
- 4. Suppose you want to walk southwest. Turn your compass so that southwest (**SW**), halfway between south and west, is in front of you.
- 5. Now turn yourself around until the north-pointing arrow is at N.
- 6. Walk with the **SW** in front of you and the **N** at the north-pointing arrow. You're moving southwest.



## Mark your answers to questions 11 through 15 in the section marked "Reading—Session 2" in your Student Response Booklet.

- 11. What is the purpose of the bullets next to each item in the list of things needed to make a compass?
  - A. to make the items in the list easier to read
  - B. to show which item in the list is most important
  - C. to show the order in which the items are used
  - D. to make the list the most important feature on the page
- 12. What should be done **immediately** before the sponge or cork gets wet?
  - A. The needle should be magnetized.
  - B. A paper cup should be filled with water.
  - C. The letters N, S, E, and W should be written on the cup.
  - D. The needle should be slid through the sponge or cork.
- 13. Compasses show the direction because the needle
  - A. always points north.
  - B. always points in the direction it faces.
  - C. can move in only one direction.
  - D. remains fixed when the compass is moved.

- 14. How is the information in Activity #2 organized?
  - A. by cause and effect
  - B. in sequential order
  - C. in order of importance
  - D. by comparison and contrast
- 15. Which book would **most likely** provide information about the history of the compass?
  - A. Rescuing Einstein's Compass
  - B. Attitude: Your Internal Compass
  - C. Moral Compass: Stories for a Life's Journey
  - D. The Riddle of the Compass: The Invention That Changed the World

This article is about the unusual field of archaeological illustration. Read the article and then answer the questions that follow.

#### **Draw Those Stinky Shoes**

Jill Ruth Wood Illustrated by Pam Headrick

What would you do if you were sent a pair of stinky sandals that were from 4,000 to 5,000 years old? Pam Headrick didn't turn up her nose. Instead, she drew them. "They still had the distinct odor of human feet!" she said.

#### **Clues in Ancient Objects**

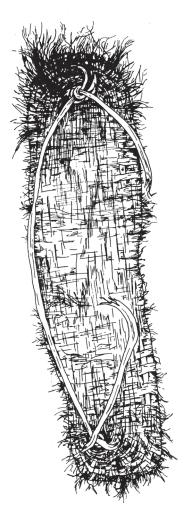
Pam Headrick is one of only a few archaeological illustrators in the United States. Archaeologists study ancient cultures by looking at tools and other artifacts they find. Headrick's job is to draw those artifacts. The ancient objects she sketches provide clues to life long ago, and her drawings help tell the story of our world's history.

When Headrick began drawing in college art classes, she learned how to use tiny details to make objects appear realistic. She soon recognized how important fine details are in archaeological illustrations. The small details of an ancient object are clues telling how it was made, how it worked, and how it was used. "It is fascinating," Headrick says. "It also takes hours and hours of work."

#### A Closer Look

Although it takes only seconds to snap a photograph of an object, illustrations can show more details. Headrick examines each artifact under bright light or through a magnifying glass, looking for clues that show how it was used. "Like a pocketknife of today, one tool could be used in numerous ways," she explains.

Looking through a magnifying glass, Headrick might discover a wear pattern on an object. For **5** example, smooth or shiny areas show that the object was used as a tool, but did it cut wood or meat? Was the tool twisted or pushed?



If she sees a polished area on a stone drill, she knows it would have been caused by the drill being repeatedly pushed through leather to make a hole. The oil in the leather would create tiny flakes along the drill's edge. However, the polish would look different on a stone tool used for cutting grass. The motion of use and a chemical reaction from the grass would create a lined pattern. Headrick recognizes these differences and shows them in her drawings.



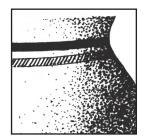
Stippling indicates a ceramic pot.



Stipple and fine lines show depth in this shell.



Small, straight, parallel lines show polished areas.



Different patterns mean different colors. Diagonal lines usually indicate red.

#### Real or Fake?

Pam Headrick also uses her experience and knowledge to tell if an artifact is authentic. Is it what the archaeologists believe it to be? She knows if markings on stones or shells were made by humans or by natural causes, such as an animal or the weather. She can tell if marks on a 9,000-year-old stone tool found on a cow path were made by cow's hooves or by humans.

After examining an object and analyzing the clues, Headrick begins drawing. She has to follow strict standards when illustrating artifacts. Each artifact must be drawn life-size. All measurements must be exact. Headrick uses pen and ink to do her black-and-white illustrations. This makes it easier to show the details. Her eye is trained to look past the colors for the clues she needs.

The artifact's clues must be drawn in a specific way so that they are easy to understand. There are standard rules for archaeological drawings of pottery, stone, and shells. For example, in a drawing of pottery, shading must be done with dots called *stipples*. Patterned lines must be used to show multicolors. A polished area on a stone tool must be drawn with small, straight, parallel lines. Guidelines like these let anyone studying the drawing recognize the clues Headrick has drawn.

#### **Imagining the Past**

Often, Headrick imagines how things looked as she tries to show how an artifact was once used. She might put hands in a picture to show how a tool was used. When she does an illustration of a structure, Headrick might omit the trees and bushes, or she might decide to add a landscape when drawing an ancient site.

Headrick's illustrations help provide a record of how ancient peoples lived. Perhaps 4,000 years in the future, something as simple as a shoe might offer a clue to everyday life in our time.

#### **Imagine the Future**

It is 4,000 years in the future. An archaeological illustrator is looking at your shoes for clues.

- Which of your shoes' features would an archaeological illustrator notice?
- What wear marks might the illustrator find on your shoes?
- What might those wear marks reveal?
- Would the artist say your shoes were stinky?

## Mark your answers to questions 16 through 26 in the section marked "Reading—Session 2" in your Student Response Booklet.

- 16. Why does the author most likely ask the question in the first sentence of the article?
  - A. to show that the work an archaeological illustrator does is ordinary
  - B. to get readers involved in the topic of archaeological illustration
  - C. to warn that archaeological illustration may not appeal to everyone
  - D. to see what readers know about the job of an archaeological illustrator

*Use the dictionary entry below to answer question 17.* 

distinct adj 1. easily recognized by the senses or mind: a distinct flavor
2. clearly defined; unquestionable: a distinct advantage 3. very likely; probable: a distinct possibility 4. notable: a distinct honor

- 17. Which definition of <u>distinct</u> is used in the first paragraph?
  - A. definition 1
  - B. definition 2
  - C. definition 3
  - D. definition 4

- 18. According to this article, small details can provide clues to all of the following things about an artifact **except** 
  - A. how it was used.
  - B. how it was made.
  - C. how it worked.
  - D. how it was found.
- 19. In paragraph 5, the term "wear pattern" refers to a
  - A. result of use.
  - B. painted design.
  - C. carved design.
  - D. method of use.
- 20. What is the **main** purpose of the four illustrations in boxes?
  - A. to show some interesting ancient artifacts
  - B. to show standard ways that clues are drawn on artifacts
  - C. to show why illustrations are better than photographs
  - D. to show the steps in the process of archaeological illustration

- 21. Which quality is **most** essential to the job of an archaeological illustrator?
  - A. attention to rules and small details
  - B. ability to see beauty in ordinary things
  - C. skill in using color to achieve a realistic image
  - D. creativity in interpreting the ancient past
- 22. In an archaeological illustration, a polished area is indicated by
  - A. diagonal lines.
  - B. stipple and fine lines.
  - C. long, narrow, wavy patterns.
  - D. small, straight, parallel lines.
- 23. Which sentence from the article states an opinion?
  - A. "Pam Headrick is one of only a few archaeological illustrators in the United States."
  - B. "Headrick examines each artifact under bright light or through a magnifying glass, looking for clues that show how it was used."
  - C. "The oil in the leather would create tiny flakes along the drill's edge."
  - D. "Perhaps 4,000 years in the future, something as simple as a shoe might offer a clue to everyday life in our time."

- 24. This article is **mostly** about how
  - A. archaeological illustrators do their work.
  - B. artifacts are determined to be real or fake.
  - C. ancient sandals can reveal facts about the past.
  - D. archaeological illustrations are superior to photographs.
- 25. The title "Draw Those Stinky Shoes" was **most likely** chosen to
  - A. interest readers in the article.
  - B. identify the subject of the article.
  - C. challenge readers to try to draw the sandals.
  - D. focus attention on the illustration of the sandals.
- 26. On the Web site for the Association for Archaeological Illustrators and Surveyors, which link would **most likely** include examples of archaeological illustrations?
  - A. "About Us"
  - B. "Careers"
  - C. "Gallery"
  - D. "Contact Us"

Write y	your	answer	to	question	<b>27</b>	in	the s	space	provided	for	it i	in you	r Student	Res	ponse	<b>Bookle</b>	t
---------	------	--------	----	----------	-----------	----	-------	-------	----------	-----	------	--------	-----------	-----	-------	---------------	---

27. Explain how the standard rules for archaeological illustrators help those who study their illustrations. Support your answer with information from the article.

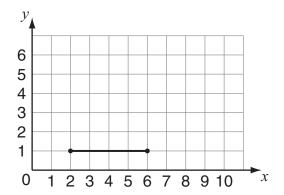
NO TEST MATERIAL ON THIS PAGE

# Mathematics Session 1 (Calculator)

This test session includes multiple-choice questions and a question for which you must show your work or write out your answer. You may use a calculator during this session.

Mark your answers to questions 1 through 14 in the section marked "Mathematics—Session 1 (Calculator)" in your Student Response Booklet.

1. The **base** of an isosceles triangle is shown on the coordinate plane below.



Which ordered pair could be the coordinates of the third vertex of the isosceles triangle?

- A. (2, 4)
- B. (4, 5)
- C. (6, 4)
- D. (10, 5)

*Use the equation below to answer question 2.* 

$$2m + 52 = 180$$

2. Which equation shows a correct first step to solve for *m*?

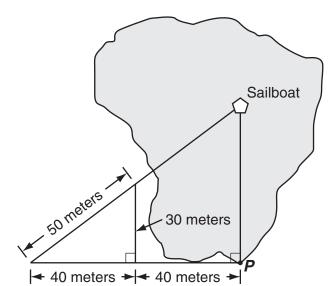
A. 
$$2m + 52 - 52 = 180 + 52$$

B. 
$$\frac{2m}{2} + 52 = \frac{180}{2}$$

C. 
$$(2+52)m = 180$$

D. 
$$2m + 52 - 52 = 180 - 52$$

3. A sailboat is located in the middle of a lake. Elaine drew the sketch shown below to determine the distance between the sailboat and point *P* on the shoreline.



What is the distance between the sailboat and point P?

- A. 50 meters
- B. 60 meters
- C. 70 meters
- D. 100 meters

- 4. A survey found that 2 out of 5 people like fish sticks. If 350 people like fish sticks, how many people were surveyed?
  - A. 140
  - B. 175
  - C. 700
  - D. 875

5. Which table shows a linear relationship between *x* and *y*?

	x	y
	1	50
A. 2	2	40
	3	30
	4	15
	5	0

	x	у
	1	50
C.	2	25
C.	3	10
	4	5
	5	0

	x	y
	1	40
D	2	20
D.	3	10
	4	5
	5	0

- 6. Martin bought 12 cubic yards of dirt. He plans to spread the dirt to an average depth of 2 feet. How many square **feet** of area will the dirt cover? [Hint: 1 cu. yd. = 27 cu. ft.]
  - A. 6 square feet
  - B. 18 square feet
  - C. 54 square feet
  - D. 162 square feet
- 7. The formula below can be used to find the amount of interest, *i*, earned when *p* dollars are invested at an annual interest rate of *r* for *t* years.

$$i = prt$$

How much interest will be earned if \$300 is invested at a rate of 2% for 4 years?

- A. \$ 6.00
- B. \$ 8.00
- C. \$18.00
- D. \$24.00
- 8. Each math team consists of one girl and one boy. Three girls and three boys want to be on math teams. How many different math teams can be made using one boy and one girl?
  - A. 3
  - B. 6
  - C. 9
  - D. 20

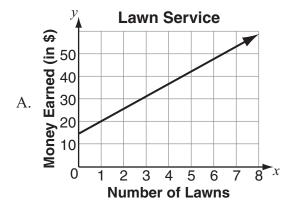
- 9. Triangle EFG is a right triangle with legs measuring 4 and 8. Which pair of measures could be the lengths of the legs of a right triangle that is similar to  $\Delta EFG$ ?
  - A. 3 and 7
  - B. 6 and 10
  - C. 8 and 12
  - D. 12 and 24

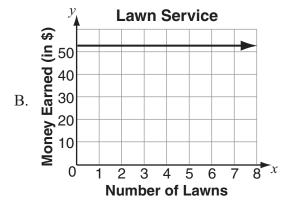
- 10. Christopher rode his bike 2.4 miles in 12 minutes. What was his average speed in miles per hour?
  - A. 5 miles per hour
  - B. 12 miles per hour
  - C. 25 miles per hour
  - D. 48 miles per hour

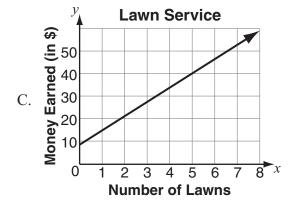
11. The table below shows the amount of money Jason earns mowing lawns.

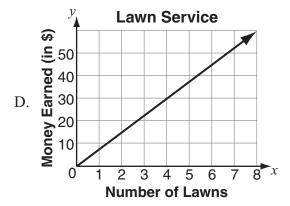
Jason's Lawn Service					
Number of Lawns	Money Earned				
2	\$15.00				
5	\$37.50				
7	\$52.50				

Based on the pattern in the table, which graph **best** represents the amount of money, y, Jason earns for mowing x lawns?

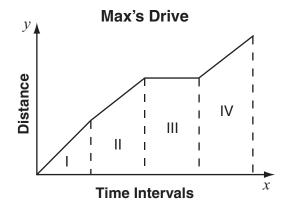








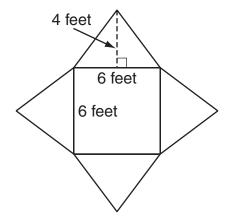
- 12. Harold drinks 2500 milliliters of water each day. How many liters of water does he drink each day?
  - A. 0.25 liters
  - B. 2.5 liters
  - C. 25 liters
  - D. 250 liters
- 13. This graph shows the relationship between the time, *x*, and the total distance, *y*, that Max traveled.



Which statement **best** describes what Max was most likely doing during Interval III?

- A. driving uphill
- B. coasting downhill
- C. traveling on a flat road
- D. stopping for a rest

14. Anthony is using the pattern shown below to make a model of a square pyramid.



What will be the **surface area** of the pyramid he makes with this pattern?

- A. 48 square feet
- B. 84 square feet
- C. 132 square feet
- D. 144 square feet

#### Write your answer to question 15 in the space provided for it in your Student Response Booklet.

15. The frequency table below shows the number of ounces of water each member of a health class reportedly consumes on a normal day.

**Daily Water Consumption** 

Number of Ounces of Water	Frequency
8	2
16	4
24	3
32	3
40	2
48	1
56	1

- a. How many members are in the health class? Show or explain how you found your answer.
- b. What is the median number of ounces of water consumed by members of the health class? Show or explain how you found your answer.
- c. What is the mean number of ounces of water consumed by members of the health class? Show or explain how you found your answer.

NO TEST MATERIAL ON THIS PAGE

# Mathematics Session 2A (Calculator)

This test session includes a multiple-choice question. You may use a calculator during this session.

Mark your answer to question 16 in the section marked "Mathematics—Session 2A (Calculator)" in your Student Response Booklet.

16. A builder charges a base fee plus an hourly rate for the time spent at each job. The table below shows the builder's total charges for jobs of different lengths.

Time on the Job (hours)	Total Charge
1	\$55
2	\$80
3	\$105
4	\$130

Let c represent the total charge for a job and h represent the number of hours it takes the builder to complete the job. Which equation represents the relationship between the total charge and the number of hours required to complete the job?

A. 
$$c = 30 + 25h$$

B. 
$$c = 40 + 20h$$

C. 
$$c = 55h$$

D. 
$$c = 40h$$

NO TEST MATERIAL ON THIS PAGE

# Mathematics Session 2B (No Calculator)

This test session includes multiple-choice questions. You may NOT use a calculator during this session.

Mark your answers to questions 17 through 19 in the section marked "Mathematics—Session 2B (No Calculator)" in your Student Response Booklet.

- 17. Greg has \$150 to spend on a car rental for his weeklong vacation. The car rental company charges \$95 a week plus \$0.18 per mile. Let *m* stand for the number of miles Greg will drive. Which equation should he use to find how many miles he can drive during his vacation without spending more than \$150?
  - A. 95m + 0.18 = 150
  - B. 150m + 0.18 = 95
  - C. 95 + 150 = 0.18m
  - D. 0.18m + 95 = 150

18. Which expression has the greatest value?

A. 
$$-24 - (-8) + 12$$

B. 
$$-24 - 8 + 12$$

C. 
$$-24 - 8 - 12$$

D. 
$$-24 - (-8) - 12$$

- 19. Ms. Sloby is treating the math club to a cookout. She bought hot dogs in packages of 12 and buns in packages of 8. If each student has 1 hot dog and 1 bun and there are no leftover buns or hot dogs, what is the smallest possible number of students in the math club?
  - A. 96 students
  - B. 48 students
  - C. 24 students
  - D. 12 students

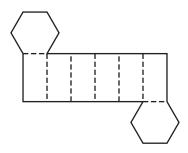
NO TEST MATERIAL ON THIS PAGE

# Mathematics Session 3 (No Calculator)

This test session includes multiple-choice questions and questions for which you must show your work or write out your answer. You may NOT use a calculator during this session.

Mark your answers to questions 20 through 28 in the section marked "Mathematics—Session 3 (No Calculator)" in your Student Response Booklet.

20. Polly is folding the pattern shown below along the dotted lines to make a box.



What type of box is Polly making?

- A. hexagonal prism
- B. hexagonal pyramid
- C. octagonal prism
- D. octagonal pyramid
- 21. Jerry is buying four books at the prices listed below.

Which expression could Jerry use to find the total cost of the books?

- A. (2+3+5+2)+4(0.05)
- B. (2+3+5+2)-4(0.05)
- C. (1+2+4+1)+4(0.05)
- D. (1+2+4+1)-4(0.05)

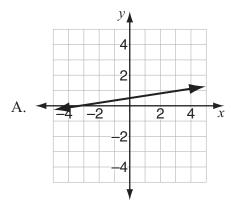
22. Mr. Lee purchased the items listed in the table below.

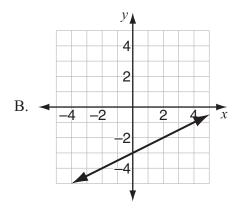
Shirt	\$14.89				
Jeans	\$29.29				
Belt	\$ 5.09				
Socks	\$ 5.99				

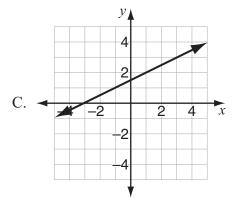
About how much change should Mr. Lee receive if he pays with a \$100 bill?

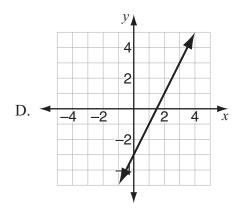
- A. \$40
- B. \$45
- C. \$50
- D. \$55
- 23. Which group of numbers is arranged in order from **least** to **greatest**?
  - A.  $-10, 0, \sqrt{25}$
  - B. 0,  $-10, \sqrt{25}$
  - C.  $-10, \sqrt{25}, 0$
  - D.  $\sqrt{25}$ , -10, 0

24. Which graph represents  $y = \frac{1}{2}x - 3$ ?



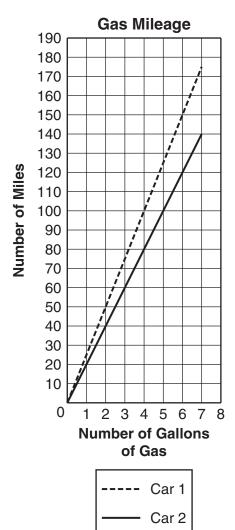






- 25. The distance to the center of Earth from a point on the equator is about 6380 kilometers. Which mathematical term **best** represents this distance?
  - A. area
  - B. circumference
  - C. diameter
  - D. radius
- 26. Bookends Bookstore wants to survey its customers to determine the most popular book. Which sample would **best** represent the company's customers?
  - A. the first 100 customers on a Saturday morning
  - B. the first 100 customers who volunteer
  - C. every 10th customer during a two-week period
  - D. every 10th customer who signs up for the newsletter

27. A magazine included this graph with an article about the gas mileage of two cars.



Based on the graph, how many more gallons of gas will Car 2 use to travel 100 miles than Car 1?

- A. 1
- B. 2
- C. 4
- D. 5

- 28. On Monday, a supermarket had  $15\frac{1}{4}$  cases of apple juice for sale. On Friday, there were  $8\frac{1}{2}$  cases left. How many cases of apple juice were sold at this supermarket between Monday and Friday?
  - A.  $6\frac{1}{4}$
  - B.  $6\frac{3}{4}$
  - C.  $7\frac{1}{4}$
  - D.  $7\frac{3}{4}$

Write your answers to questions 29 and 30 in the spaces provided in your Student Response Booklet. Show all of your work.

29. The formula below can be used to find the final price, p, including tax, of a television that costs c dollars.

$$p = c + 0.07c$$

What is the final price of a television that costs \$200?

30. Divide.

$$5.25 \div 0.5$$

#### **Acknowledgments**

Measured Progress and Montana's Office of Public Instruction wish to acknowledge and credit the following authors and publishers for use of their work in the Montana Comprehensive Assessment System—2007.

"The Race" by Jennifer Trujillo from *Love to Mamá: A Tribute to Mothers*, edited by Pat Mora. Published by Lee & Low Books. Copyright © 2001 by Jennifer Trujillo.

"A Flock of Birds" from *Wisdom Tales from around the World* by Heather Forest. Published by August House Publishers, Inc. Copyright © 1996 by Heather Forest.

"Make Your Own Compass" from "Reading the Directions" by Karen E. Hong as it appeared in *AppleSeeds*, January 1999. Published by Cobblestone Publishing Company. Copyright © 1999 by Carus Publishing Company.

"Draw Those Stinky Shoes" by Jill Ruth Wood, illustrated by Pam Headrick, as it appeared in *Highlights for Children*, August 2004. Published by Highlights for Children, Inc. Copyright © 2004 by Highlights for Children, Inc.